

AMENDMENT TO THE CLAIMS

1-24 (canceled)

25. (original) A mobility assist device, comprising:
a location system providing a location signal indicative of a location of a mobile body;
a data storage system storing object information indicative of objects located in a plurality of locations;
a display system; and
a controller coupled to the location system, the data storage system and the display system, and configured to receive the location signal and retrieve object information based on the location signal and provide a display signal to the display system such that the display system displays objects in substantially a correct perspective of an observer located at the location of the mobile body.

26. (original) The mobility assist device of claim 25 wherein the display system is configured to provide a conformal augmented display of the objects based on the display signal.

27. (original) The mobility assist device of claim 25 wherein the controller provides the display signal such that the objects are displayed at a position in a field of view of the observer at a location which substantially overlies the actual objects in the field of view.

28. (original) The mobility assist device of claim 26 wherein the display system comprises:

a projection system providing a projection of an image of the objects; and

a partially reflective, partially transmissive screen, positioned in the field of view of the observer and positioned to receive the projection to allow the observer to see through the screen and to see the image of the objects projected thereon.

29. (original) The mobility assist device of claim 25 and further comprising:

a ranging system, coupled to the controller and configured to detect transitory objects and provide a detection signal to the controller indicative of the location of the transitory object relative to the mobile body.

30. (original) The mobility assist device of claim 29 wherein the controller is further configured to provide the display signal, based at least in part on the detection signal, such that the display system displays the transitory objects in substantially a correct perspective of an observer located at the location of the mobile body.

31. (original) The mobility assist device of claim 25 wherein the controller is configured to filter the display signal such that the display system displays only transitory objects based on operator-selected criteria.

32. (original) The mobility assist device of claim 25 wherein the controller is configured to filter the display signal such that the display system displays only transitory objects and selected objects indicated by the object information that have been selected for display.

33. (original) The mobility assist device of claim 25 and further

comprising:

a mobile body orientation detection system, coupled to the controller and the mobile body, detecting an orientation of the mobile body and providing an orientation signal to the controller.

34. (original) The mobility assist device of claim 25 wherein the observer comprises a human with a head and further comprising:

a head orientation tracking system, coupled to the controller, detecting an orientation of the observer's head and providing a head orientation signal to the controller.

35. (original) The mobility assist device of claim 25 wherein the object information is intermittently updated.

36. (original) The mobility assist device of claim 25 wherein the display system comprises a helmet-mounted display system.

37. (original) The mobility assist device of claim 25 wherein the display system comprises a visor-mounted display system.

38. (original) The mobility assist device of claim 25 wherein the display system comprises an eyeglass-mounted display system.

39. (original) A method of monitoring operation of a mobility assist device having a location system providing a location signal indicative of a location of a mobile body, a data storage system storing object information indicative of objects located in a plurality of locations, a display system, a ranging system detecting a location of objects and transitory objects relative to the mobile body and providing an object detection signal based thereon, and a controller coupled to the location system, the data

storage system, the ranging system and the display system, and configured to receive the location signal and the object detection signal and retrieve object information based on the location signal and provide a display signal to the display system such that the display system displays objects and transitory objects in substantially a correct perspective of an observer located at the location of the mobile body, the method comprising:

- receiving the object detection signal;
- determining whether the object detection signal correlates to the object information in the data storage system; and
- providing an output at least indicative of a system problem when the object detection signal and the object information are determined not to correlate.

40. (original) The method of claim 39 wherein determining whether the object detection signal correlates to the object information in the data storage system comprises:

- accessing the data storage system based on the location signal; and
- determining whether the object detection signal indicates the presence of objects indicated by the object information for the location of the mobile body.

41. (original) The method of claim 39 wherein providing an output comprises:

- when the object detection signal does not indicate the presence of objects indicated by the object information for the location of the mobile body, providing a user observable indication of a possible malfunction.

42. (original) The method of claim 40 wherein providing an output comprises:

when the object detection signal indicates the presence of objects indicated by the object information for the location of the mobile body, providing a user observable indication of proper operation.

43. (original) The method of claim 39 wherein providing an output comprises:

providing a visual display.

44. (original) A method of controlling a mobility assist device having a location system providing a location signal indicative of a location of a mobile body, a data storage system storing object information indicative of objects located in a plurality of locations, a display system, a ranging system detecting a location of objects and transitory objects relative to the mobile body and providing an object detection signal based thereon, and a controller coupled to the location system, the data storage system, the ranging system and the display system, and comprising:

receiving the location signal and the object detection signal;
retrieving object information based on the location signal;
and

providing a filtered display signal to the display system, the display signal being filtered such that the display system displays objects and transitory objects, based on operator selected filtering criteria, in substantially a correct perspective of an observer located at the location of the mobile body.

45. (original) A mobility assist device, comprising:

a location system providing a location signal indicative of a location of a mobile body;

a data storage system storing object information indicative of

objects located in a plurality of locations;
a neurostimulation system; and
a controller coupled to the location system, the data storage system and the neurostimulation system, and configured to receive the location signal and retrieve object information based on the location signal and provide a stimulation signal to the neurostimulation system.

46. (original) The mobility assist device of claim 45 and further comprising:

a ranging system, coupled to the controller and configured to detect transitory objects and provide a detection signal to the controller indicative of the location of the transitory object relative to the mobile body.

47. (original) The mobility assist device of claim 46 wherein the controller is further configured to provide the display signal, based at least in part on the detection signal.

48. (New) The mobility assist device of claim 25 wherein the display system is mounted to the mobile body.